

## INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2006/050055

A. CLASSIFICATION OF SUBJECT MATTER  
INV. G01S13/72 H03H21/00  
ADD. G01S13/87

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
G01S H03H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	COATES M: "Distributed particle filters for sensor networks" THIRD INTERNATIONAL SYMPOSIUM ON INFORMATION PROCESSING IN SENSOR NETWORKS ACM NEW YORK, NY, USA, 26 April 2004 (2004-04-26), - 27 April 2004 (2004-04-27) pages 99-107, XP002335206 ISBN: 1-58113-846-6 cited in the application the whole document ----- -/--	1-11



Further documents are listed in the continuation of Box C.



See patent family annex.

## \* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention can not be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

24 May 2006

Date of mailing of the international search report

13/06/2006

Name and mailing address of the ISA/

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>VAN DER MERWE R ET AL: "Gaussian mixture sigma-point particle filters for sequential probabilistic inference in dynamic state-space models" 2003 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING. PROCEEDINGS. (ICASSP). HONG KONG, IEEE, US, vol. VOL. 1 OF 6, 6 April 2003 (2003-04-06), - 10 April 2003 (2003-04-10) pages VI701-VI704, XP010640848 ISBN: 0-7803-7663-3 the whole document</p>	1-11
Y	<p>M ROSENCRA NTZ, G GORDON, S THRUN: "Decentralized Sensor Fusion with Distributed Particle Filters" PROC. CONF. UNCERTAINTY IN ARTIFICIAL INTELLIGENCE, 7 August 2003 (2003-08-07), XP002335207 Acapulco, Mexico cited in the application the whole document</p>	1-11
Y	<p>SIDENBLADH H: "Multi-target particle filtering for the probability hypothesis density" INFORMATION FUSION, 2003. PROCEEDINGS OF THE SIXTH INTERNATIONAL CONFERENCE, PISCATAWAY, NJ, USA, IEEE, vol. 2, 8 July 2003 (2003-07-08), - 11 July 2003 (2003-07-11) pages 800-806, XP010675628 * Chapter 4 *</p>	1-11
Y	<p>TOBIAS M ET AL: "A probability hypothesis density-based multitarget tracker using multiple bistatic range and velocity measurements" SYSTEM THEORY, 2004. PROCEEDINGS OF THE THIRTY-SIXTH SOUTHEASTERN SYMPOSIUM ON ATLANTA, GA, USA MARCH 14-16, 2004, PISCATAWAY, NJ, USA, IEEE, 14 March 2004 (2004-03-14), pages 205-209, XP010703817 ISBN: 0-7803-8281-1 * Chapter IV *</p>	1-11

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	MAKARENKO A ET AL: "Decentralized data fusion and control in active sensor networks" SEVENTH INTERNATIONAL CONFERENCE ON INFORMATION FUSION INT. SOC. OF INFORMATION FUSION MOUNTAIN VIEW, CA, USA, vol. 1, 2004, pages 479-486 Vol.1, XP002335208 ISBN: 91-7056-115-X * Chapter 3 *	1-11
A	----- KOTECHA J H ET AL: "Gaussian sum particle filtering" IEEE TRANSACTIONS ON SIGNAL PROCESSING IEEE USA, vol. 51, no. 10, October 2003 (2003-10), pages 2602-2612, XP002335209 ISSN: 1053-587X abstract	1-11
A	----- ARULAMPALAM M S ET AL: "A tutorial on particle filters for online nonlinear/non-Gaussian Bayesian tracking" IEEE TRANSACTIONS ON SIGNAL PROCESSING IEEE USA, vol. 50, no. 2, February 2002 (2002-02), pages 174-188, XP002335210 ISSN: 1053-587X cited in the application the whole document -----	